

Claims

- [c1] 1.A system for reconditioning a spinning tire, while the spinning tire remains on a wheel on a vehicle, so as to cause the spinning tire to have a more circular shape, the system comprising:
a material removing apparatus, configured to remove material from a spinning tire mounted on a vehicle, when said material removing apparatus encounters a first portion of said spinning tire; and,
an adjusting mechanism, coupled to and configured to permit adjustment of said material removing apparatus, so as to cause said material removing apparatus to be in a position to effect a change in shape of said spinning tire.
- [c2] 2.A system of claim 1 wherein said material removing apparatus is configured to remove material along a line which is parallel to a surface of said spinning tire and parallel to an axis of rotation of said spinning tire.
- [c3] 3.A system of claim 1 wherein said system is free from any apparatus configured to cause said spinning tire to spin.

- [c4] 4.A system of claim 2 wherein said material removing apparatus is a linear plurality of sharp edges.
- [c5] 5.A system of claim 4 wherein said linear plurality of sharp edges extends a substantial distance with respect to a width characteristic of said spinning tire.
- [c6] 6.A system of claim 1 wherein said adjusting mechanism is coupled to a portion of a vehicle which is configured to cause said spinning tire to spin.
- [c7] 7.A system of claim 6 wherein said adjusting mechanism is configured to provide continuously variable positioning of said material removing apparatus with respect to said first portion of said spinning tire.
- [c8] 8.A system of claim 7 wherein said adjusting mechanism is a meshing member which is configured to advance said material removing apparatus fore and aft with respect to said spinning tire.
- [c9] 9.A system of claim 8 wherein said meshing member is a threaded rod.
- [c10] 10.A system of claim 6 wherein said vehicle is a lift truck.
- [c11] 11.A system of claim 10 wherein said adjusting mechanism is configured to provide continuously variable posi-

tioning of said material removing apparatus with respect to said first portion of said spinning tire and said material removing apparatus is a linear plurality of sharp edges.

[c12] 12.A system of claim 11 wherein said system is free from any apparatus configured to cause said spinning tire to spin.

[c13] 13.A system of claim 1 wherein said adjusting mechanism is configured to permit initial contact to occur between said material removing apparatus and said spinning tire while said spinning tire is spinning.

[c14] 14.A system of claim 13 further comprising a lateral adjustment mechanism for adjusting a location of a point of contact between said material removing apparatus and said spinning tire.

[c15] 15.A system of claim 1 wherein said first portion is a portion which, if removed, would tend to cause said spinning tire to return to a more circular shape.

[c16] 16.A system of claim 1 wherein said spinning tire is a solid tire.

[c17] 17.A system for reshaping a tire mounted on a vehicle comprising:

a mount configured for coupling to a vehicle which is configured to spin said tire while said tire is mounted on said vehicle;

a cutting tool coupled to said mount;

a cutting tool depth adjusting mechanism, which is coupled to said cutting tool and said mount, so that a continuously variable depth of material removal can be set by a manipulation of said cutting tool depth adjusting mechanism;

said cutting tool depth adjusting mechanism further configured to permit said cutting to be free from contact with said tire while said tire is being spun by said vehicle and then first come into contact with a first portion of said tire when said cutting tool depth adjusting mechanism is adjusted in a continuously variable manner in a first direction; and,

said first portion of said tire being a portion of said tire which, if removed, would tend to return said tire to a more circular shape.

[c18] 18.A system of reshaping a tire of claim 17 wherein said cutting tool depth adjusting mechanism is further configured to permit increased removal of material from said tire as a rotating adjusting member is advanced.

[c19] 19.A system of claim 18 wherein said vehicle is a lift truck.

[c20] 20. A tire reshaping system comprising:
a plurality of cutting members extending laterally across
a substantial portion of a road surface engaging portion
of a rotating tire on a vehicle; and,
a rotating meshing member coupled to said plurality of
cutting members so that an advancement of said rotating
meshing member increases a depth of material removal
from said tire by said plurality of cutting tools.